Raymarine®

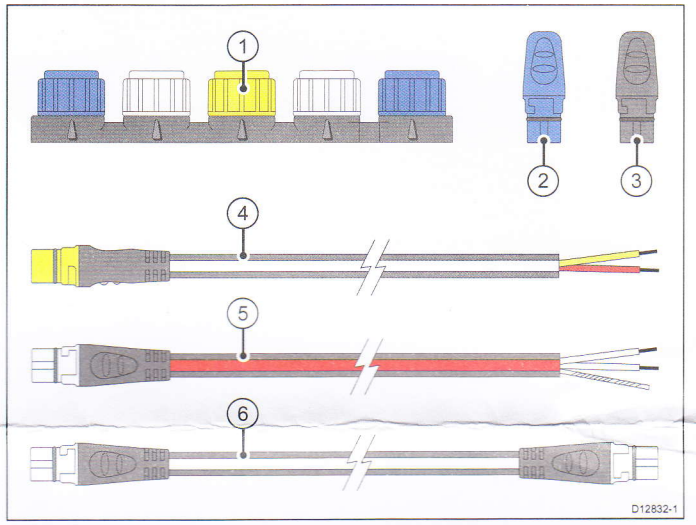
NMEA 0183 converter kit — overview

The NMEA 0183 to SeaTalkng converter kit (E70196) enables you to connect a NMEA 0183 device to a SeaTalkng bus.

A typical use for the converter is for the connection of a SeaTalkng GPS receiver (e.g. the RS130) or multifunction display (e.g. a65 / a67) to a VHF radio, for outputting GPS position data to the VHF radio.

Note: The converter supports only uni-directional (one-way) communication from the SeaTalkng bus to the NMEA device. For example, it only supports the **output** of GPS position data from a multifunction display or GPS receiver to the VHF radio. The converter does NOT allow bi-directional (two-way) NMEA 0183 communications.

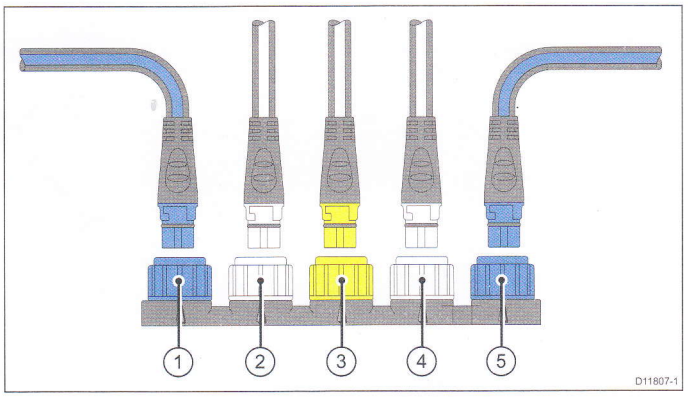
Parts supplied



Item	Description	Quantity	Length
1	Converter	1	—
2	SeaTalkng terminator	2	—
3	SeaTalkng blanking plug	2	—
4	SeaTalkng to NMEA 0183 bare wires	1	1 m (39.4 in)
5	SeaTalkng power cable	1	1 m (39.4 in)
6	SeaTalkng spur cable	1	1 m (39.4 in)

Connections overview

The converter connects in-line as part of the SeaTalkng backbone, or standalone as part of a smaller system. It provides connections for an NMEA 0183 device, and SeaTalkng devices.



Item	Connector color	Description
1	Blue	SeaTalkng backbone connection.
2	White	SeaTalkng spur connection.
3	Yellow	NMEA 0183 spur connection.
4	White	SeaTalkng spur connection.
5	Blue	SeaTalkng backbone connection.

NMEA 0183 spur connection

The converter supports the connection of a single isolated NMEA 0183 spur. The converter bridges uni-directional (one-way) data only, from the SeaTalkng bus to the NMEA 0183 spur.

Please note the following regarding the NMEA 0183 spur:

- The spur is for connection of a single NMEA 0183 device (typically a VHF radio).
- This converter is NOT intended for direct connection to a PC serial port. Please contact Raymarine technical support for more information.

Important: The NMEA device that connects to the converter must have an isolated NMEA input. All Raymarine VHF radios feature an isolated NMEA input. If in doubt regarding third-party devices, please consult the instructions provided with the device, or contact the device manufacturer.

SeaTalkng spur connections

These allow connection of a standard SeaTalkng spur, and form part of the SeaTalkng bus.

Converter power supply — NMEA 0183

If connected to a SeaTalkng backbone, the converter takes its power from the SeaTalkng bus.

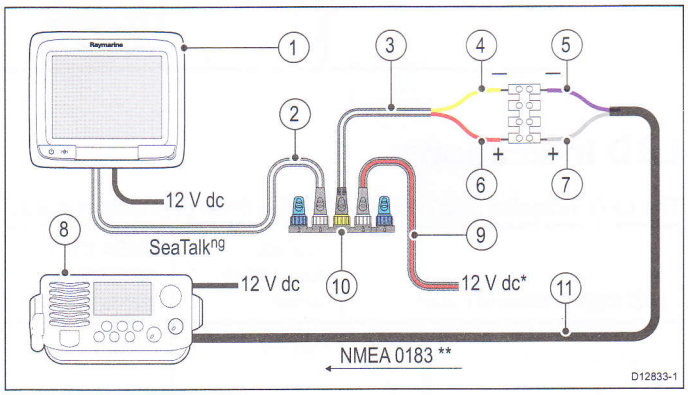
If the converter is being used in a standalone configuration, a 12 V power supply must be connected to one of the SeaTalkng spur connections.

VHF radio connection (NMEA 0183) to the converter

You can connect a SeaTalkng multifunction display or GPS receiver to an NMEA 0183 VHF radio via the converter.

Connections

NMEA 0183 connections to the converter are made via the SeaTalkng to NMEA 0183 bare wires spur cable, a terminal block, and the NMEA 0183 cable supplied with the VHF radio.



1. SeaTalkng multifunction display (alternatively, a SeaTalkng GPS receiver may be used as the source of GPS data for the VHF radio).
2. SeaTalkng spur.
3. SeaTalkng to NMEA 0183 bare wires spur cable.
4. Converter NMEA 0183 negative connection (yellow wire).
5. NMEA 0183 device **input** negative connection (purple wire).
6. Converter NMEA 0183 positive connection (red wire).

7. NMEA 0183 device **input** positive connection (grey wire).
8. NMEA 0183 VHF radio.
9. SeaTalkng power cable.
10. Converter.
11. NMEA 0183 connection (use cable supplied with VHF radio).

Note: * If the converter is connected to a powered SeaTalkng backbone, a dedicated power connection to the converter as shown in the illustration above is NOT required.

Note: ** The connection at the VHF radio must be to the NMEA 0183 input only. It is a uni-directional (one-way) connection only.

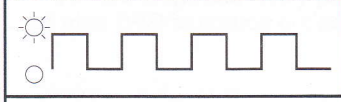
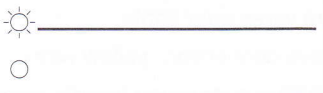
NMEA 0183 PGNs

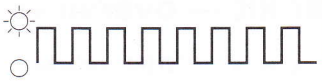
The converter bridges the following NMEA PGNs from the SeaTalkng bus to an NMEA device.

Message number	Message description	NMEA 0183 PGN	Notes
129025	Latitude and Longitude	GGA	If Latitude and Longitude is present on SeaTalkng, GGA will transmit only the available data fields, for example, time and date.
129029	GPS statistics and Latitude and Longitude		
129033	Time and date		
129029	GPS statistics and Latitude and Longitude	RMC	If Latitude and Longitude is present on SeaTalkng, RMC will transmit only the available data fields, for example, time and date.
129033	Time and date		
129026	COG / SOG		
127258	Variation		
65311	Variation		
129026	COG / SOG	VTG	If COG and / or SOG are present on SeaTalkng, VTG will transmit only the available data fields, for example, variation.
127258	Variation		
65311	Variation		

LED indications

The LED indicates SeaTalkng and NMEA 0183 connection status.

LED state (8 Second cycle)	SeaTalkng connection status	NMEA 0183 connection status
	Healthy	Healthy
	Not connected / fault	Not connected / fault
	Healthy	No valid GPS data available, NMEA 0183 data cannot be provided.

LED state (8 Second cycle)	SeaTalkng connection status	NMEA 0183 connection status
	Connected but not receiving data	No data available, NMEA 0183 data cannot be provided.
	High voltage (power supply too high)	
	Low voltage / Converter not operational	